I CLAIM

1. A method of acquiring scan data from an object using a multi-sensor scanning array, characterized in that the array and the object are moved relative to each other in a pattern that includes a pseudo-random component.

2. The method of claim 1 wherein a distance D separates first and second adjoining sensors in the scanning array, and the pseudo-random component of the motion traverses a distance not more than one-half D

3. The method of claim 2, wherein said relative movement between the array and object is deliberately induced.

4. The method of claim 3, wherein the array comprises plural rows of sensors.

5. The method of claim 1, wherein said relative movement between the array and object is deliberately induced.

6. The method of claim 5, wherein the array comprises plural rows of sensors.

7. The method of claim 1, wherein the array comprises plural rows of sensors.

8. The method of claim 7, wherein a distance D separates first and second adjoining sensors in the scanning array, and the pseudo-random component of the motion traverses a distance not more than one-half D

9. The method of claim 1 wherein said scan data is used to produce an image of the object that is enhanced compared to an image that would have been produced without said movement during scan data acquisition.

10. A method of producing scan data from an object using a multi-sensor scanning array, the array including plural sensor elements uniformly spaced along a line, said spacing defining an optical scanning resolution, the method characterized by combining signals from plural of said sensor elements in said line to yield a single datum in a set of output scan data, said output scan data having a resolution equal to the optical scanning resolution.

11. A method of producing scan data from an object using a multi-sensor scanning array, the array including plural sensor elements arranged in a line, the method including capturing scan data from all of the elements at a first sampling time, a first of said sensor elements capturing scan data from a first area of the object corresponding thereto at said first sampling time, wherein the method also includes capturing scan data from all of said elements at a second, subsequent sampling time, and a second of said sensor elements adjoining the first captures scan data from an area that includes part of said first area during said second sampling time.

12. The method of claim 11 wherein, between the first and second sampling times, the array is shifted relative to the object in a direction not parallel to said line.

13. A device including:

an array of photosensors;

a set of memory locations in which is stored at least a first set of scan data acquired by said array at a first sampling time, and a second set of scan data acquired by said array at a second, subsequent, sampling time;

another set of memory locations in which is stored a set of seemingly random numbers that relate to locations of said array at said sampling times.

14. The device of claim 13 in which said first set of memory locations further has stored therein a third set of scan data acquired by said array at a third sampling time after the second.

15. The device of claim 13 that further includes a calculating device having a first input for receiving scan data from the first set of memory locations, and a second input for receiving said seemingly random numbers from said another set of memory locations.

16. The device of claim 15 in which said calculating device operates on said scan data and seemingly random numbers to yield final image data.